

which the boiler is located and any persons seeking such approval must submit to the EPA Regional Administrator a request containing at least the following information:

(i) The name and address of the owner or operator of the boiler and the address of the boiler.

(ii) The boiler rating in units of BTU/hour.

(iii) The carbon monoxide concentration and the excess oxygen percentage in the stack of the boiler when it is operated in a manner similar to the manner in which it will be operated when low concentration PCB liquid is burned.

(iv) The type of equipment, apparatus, and procedures to be used to control the feed of mineral oil dielectric fluid to the boiler and to monitor and record the carbon monoxide concentration and excess oxygen percentage in the stack.

(v) The type of waste to be burned (e.g., hydraulic fluid, contaminated fuel oil, heat transfer fluid, etc.).

(vi) The concentration of PCBs and of any other chlorinated hydrocarbon in the waste and the results of analyses using the American Society of Testing and Materials (ASTM) methods as follows: Carbon and hydrogen content using ASTM D-3178-84, nitrogen content using ASTM E-258-67 (Reapproved 1987), sulfur content using ASTM D-2784-89, ASTM D-1266-87, or ASTM D-129-64, chlorine content using ASTM D-808-87, water and sediment content using either ASTM D-2709-88 or ASTM D-1796-83 (Reapproved 1990), ash content using ASTM D-482-87, calorific value using ASTM D-240-87, carbon residue using either ASTM D-2158-89 or ASTM D-524-88, and flash point using ASTM D-93-90.

(vii) The quantity of wastes estimated to be burned in a 30-day period.

(viii) An explanation of the procedures to be followed to ensure that burning the waste will not adversely affect the operation of the boiler such that combustion efficiency will decrease.

(3) On the basis of the information in paragraph (b)(2) of this section and any other available information, the Regional Administrator may, at his/her discretion, find that the alternate dis-

posal method will not present an unreasonable risk of injury to health or the environment and approve the use of the boiler.

(4) When burning PCB wastes, the boiler must operate at a level of output no less than the output at which the measurements required under paragraph (b)(2)(iii) of this section were taken.

(5) Any person burning liquids in boilers approved as provided in paragraph (b)(3) of this section, must obtain the following information and retain the information for 5 years at the boiler location:

(i) The data required to be collected in paragraphs (b)(1)(vi) and (b)(1)(vii) of this section.

(ii) The quantity of low concentration PCB liquid burned in the boiler each month.

(iii) The analysis of the waste required by paragraph (b)(2)(vi) of this section taken once a month for each month during which low concentration PCB liquid is burned in the boiler.

[63 FR 35454, June 29, 1998]

#### **§ 761.72 Scrap metal recovery ovens and smelters.**

Any person may dispose of residual PCBs associated with PCB-contaminated articles regulated for disposal under § 761.60(b), metal surfaces in PCB remediation waste regulated under § 761.61, or metal surfaces in PCB bulk product waste regulated under §§ 761.62(a)(6) and 761.79(c)(6), from which all free-flowing liquids have been removed:

(a) In a scrap metal recovery oven:

(1) The oven shall have at least two enclosed (i.e., negative draft, no fugitive emissions) interconnected chambers.

(2) The equipment with all free-flowing liquid removed shall first be placed in the primary chamber at room temperature.

(3) The primary chamber shall operate at a temperature between 537 °C and 650 °C for a minimum of 2½ hours and reach a minimum temperature of 650 °C (1,202 °F) once during each heating cycle or batch treatment of unheated, liquid-free equipment.

(4) Heated gases from the primary chamber must feed directly into the

secondary chamber (i.e., afterburner) which must operate at a minimum temperature of 1,200 °C (2,192 °F) with at least a 3 percent excess oxygen and a retention time of 2.0 seconds with a minimum combustion efficiency of 99.9 percent according to the definition in § 761.70(a)(2).

(5) Heating of the primary chamber shall not commence until the secondary chamber has reached a temperature of 1,200 ± 100 °C (2,192 ° ± 180 °F).

(6) Continuous emissions monitors and recorders for carbon dioxide, carbon monoxide, and excess oxygen in the secondary chamber and continuous temperature recorders in the primary and secondary chambers shall be installed and operated while the primary and secondary chambers are in operation to assure that the two chambers are within the operating parameters in paragraphs (a)(3) through (a)(5) of this section.

(7) Emissions from the secondary chamber must be vented through an exhaust gas stack in accordance with either:

(i) State or local air regulations or permits, or

(ii) The standards in paragraph (a)(8) of this section.

(8) Exhaust gas stack emissions shall be for: particulates <0.015 grains/dry standard cubic foot, sulfur dioxide <35 parts per million by volume (ppmv), nitrogen oxide <150 ppmv, carbon monoxide <35 ppmv, and hydrogen chloride <35 ppmv.

(9) A measurement of the temperature in the secondary chamber at the time the primary chamber starts heating must be taken, recorded and retained at the facility for 3 years from the date each charge is introduced into the primary chamber.

(b) By smelting:

(1) The operating temperature of the hearth must be at least 1,000 °C at the time it is charged with any PCB-Contaminated non-porous surface.

(2) Each charge containing a PCB-Contaminated item must be added into molten metal or a hearth at ≥1,000 °C.

(3) Successive charges may not be introduced into the hearth in less than 15-minute intervals.

(4) The smelter must operate in compliance with any applicable emissions standards in part 60 of this chapter.

(5) The smelter must have an operational device which accurately measures directly or indirectly, the temperature in the hearth.

(6) Take, record and retain at the disposal facility for 3 years from the date each charge is introduced, a reading of the temperature in the hearth at the time it is charged with a non-porous surface item.

(c)(1) Scrap metal recovery ovens and smelters must either have a final permit under RCRA (part 266, subpart H of this chapter and § 270.66 of this chapter) or be operating under a valid State air emissions permit which includes a standard for PCBs.

(2) Scrap metal recovery ovens and smelters disposing of PCBs must provide notification as disposers of PCBs, are not required to submit annual reports, and shall otherwise comply with all applicable provisions of subparts J and K of this part, as well as other applicable Federal, State, and local laws and regulations.

(3) In lieu of the requirements in paragraph (c)(1) of this section, upon written request by the owner or operator of a scrap metal recovery oven or smelter, the EPA Regional Administrator, for the Region where the oven or smelter is located, may make a finding in writing, based on a site-specific risk assessment, that the oven or smelter does not pose an unreasonable risk of injury to health or the environment because it is operating in compliance with the parameters and conditions listed in paragraph (a) or (b) of this section even though the oven or smelter does not have a RCRA or State air permit as required by paragraph (c)(1) of this section. The written request shall include a site-specific risk assessment.

(d) PCB liquids, other liquid waste qualifying as waste oils which may be used as provided for at § 761.20(e), or PCB remediation waste, other than PCB-Contaminated articles, may not be disposed of in a scrap metal recovery oven or smelter unless approved or

otherwise allowed under subpart D of this part.

[63 FR 35455, June 29, 1998, as amended at 64 FR 33761, June 24, 1999]

**§ 761.75 Chemical waste landfills.**

This section applies to facilities used to dispose of PCBs in accordance with the part.

(a) *General.* A chemical waste landfill used for the disposal of PCBs and PCB Items shall be approved by the Agency Regional Administrator pursuant to paragraph (c) of this section. The landfill shall meet all of the requirements specified in paragraph (b) of this section, unless a waiver from these requirements is obtained pursuant to paragraph (c)(4) of this section. In addition, the landfill shall meet any other requirements that may be prescribed pursuant to paragraph (c)(3) of this section.

(b) *Technical requirements.* Requirements for chemical waste landfills used for the disposal of PCBs and PCB Items are as follows:

(1) *Soils.* The landfill site shall be located in thick, relatively impermeable formations such as large-area clay pans. Where this is not possible, the soil shall have a high clay and silt content with the following parameters:

(i) In-place soil thickness, 4 feet or compacted soil liner thickness, 3 feet;

(ii) Permeability (cm/sec), equal to or less than  $1 \times 10^{-7}$ ;

(iii) Percent soil passing No. 200 Sieve, >30;

(iv) Liquid Limit, >30; and

(v) Plasticity Index >15.

(2) *Synthetic membrane liners.* Synthetic membrane liners shall be used when, in the judgment of the Regional Administrator, the hydrologic or geologic conditions at the landfill require such a liner in order to provide at least a permeability equivalent to the soils in paragraph (b)(1) of this section. Whenever a synthetic liner is used at a landfill site, special precautions shall be taken to insure that its integrity is maintained and that it is chemically compatible with PCBs. Adequate soil underlining and soil cover shall be provided to prevent excessive stress on the liner and to prevent rupture of the liner. The liner must have a minimum thickness of 30 mils.

(3) *Hydrologic conditions.* The bottom of the landfill shall be above the historical high groundwater table as provided below. Floodplains, shorelands, and groundwater recharge areas shall be avoided. There shall be no hydraulic connection between the site and standing or flowing surface water. The site shall have monitoring wells and leachate collection. The bottom of the landfill liner system or natural in-place soil barrier shall be at least fifty feet from the historical high water table.

(4) *Flood protection.* (i) If the landfill site is below the 100-year floodwater elevation, the operator shall provide surface water diversion dikes around the perimeter of the landfill site with a minimum height equal to two feet above the 100-year floodwater elevation.

(ii) If the landfill site is above the 100-year floodwater elevation, the operators shall provide diversion structures capable of diverting all of the surface water runoff from a 24-hour, 25-year storm.

(5) *Topography.* The landfill site shall be located in an area of low to moderate relief to minimize erosion and to help prevent landslides or slumping.

(6) *Monitoring systems—(i) Water sampling.* (A) For all sites receiving PCBs, the ground and surface water from the disposal site area shall be sampled prior to commencing operations under an approval provided in paragraph (c) of this section for use as baseline data.

(B) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled at least monthly when the landfill is being used for disposal operations.

(C) Any surface watercourse designated by the Regional Administrator using the authority provided in paragraph (c)(3)(ii) of this section shall be sampled for a time period specified by the Regional Administrator on a frequency of no less than once every six months after final closure of the disposal area.

(ii) *Groundwater monitor wells.* (A) If underlying earth materials are homogeneous, impermeable, and uniformly sloping in one direction, only three sampling points shall be necessary.